



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

EM

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,004	04/18/2001	William F. Hackett JR.	016021001010	8876
20350	7590	06/28/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			TOATLEY, GREGORY J	
		ART UNIT	PAPER NUMBER	
			2836	

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/838,004

Applicant(s)

HACKETT, WILLIAM F.

Examiner

Gregory J. Toatley, Jr.

Art Unit

2836

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 06 November 2003.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-18 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 06 November 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The applicant has added Fig. 2 to the application, but has not amended the specification to refer to the new drawing. New figure 2 has not been entered. The new drawing shows the inductor (K1) of figure 1 being changed to a resistor (R1). The examiner suggests that the applicant replace the old fig. 1 with the new fig. 2 (calling the new fig. 2, fig. 1 and putting "Replacement Sheet" at the top"). The drawing is additionally objected to for the reason set for on the Draftsperson Review sheet, attached.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.**

With regard to claims 1 and 10, Blair teaches a safety circuit (fig. 2) for an electric motor (10) including at least one power input (L1), at least one motor winding (T1) and an input ground (26).

Blair teaches the claimed invention except for the safety circuit comprising a relay coupled to the at least one power input and the input ground; and at least one transistor switch coupled to the relay, the at least one power input and the at least one motor winding.

Quantz teaches a relay (19) coupled to power input (24), and ground (fig. 2), at least one transistor switch (42) coupled to the relay (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 2, and 11, Blair teaches the relay comprises an inductor that is inductively coupled to the at least one switch (fig. 2).

With regard to claims 3, and 12, Quantz teaches the relay comprises a resistor (60) that is coupled to the at least one transistor switch (42). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

**4. Claims 4-6, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.**

With regard to claims 7 and 14, Blair teaches a safety circuit for an electric motor (10) including at least first and second power inputs (L1, L2), at least first and second motor windings (T1, T2) and an input ground (26).

Blair teaches the claimed invention except for the safety circuit comprising a relay coupled to the at least one power input and the input ground; and at least first and second transistor switches coupled to the relay, the first transistor switch being coupled to the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Quantz teaches a relay (19) coupled to power input (24), and ground (fig. 2).

Quantz teaches a first and second transistor switches (34, 42) coupled to the relay (fig. 2).

It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 5, and 14, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claims 6, and 15, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

**5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair, US 3,656,136 in view of Quantz, US 5,343,351.**

With regard to claim 7, Blair teaches an electric motor (10) comprising:

- a. at least first and second power inputs (L1, L2);
- b. at least first and second motor windings (T1, T2);
- c. an input ground (26); and

Blair teaches the claimed invention except for a safety circuit comprising: a relay coupled to the at least two power inputs and the input ground; and at least first and second transistor switches coupled to the relay, the first transistor switch being coupled to the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Quantz teaches these features (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 8, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 9, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

**6. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malcosky, US 3,809,506 in view of Blair, and Quantz.**

With regard to claim 16, Malcosky teaches a pump (10) comprising an electric motor (12).

Malcosky teaches the claimed invention except for at least first and second power inputs; at least first and second motor windings; an input ground; and a safety circuit comprising: a relay coupled to the at least two power inputs and the input ground; and at least first and second transistor switches coupled to the relay, the first transistor switch being coupled to the first power input and the first motor winding, and the second transistor switch being coupled to the second power input and the second motor winding.

Blair teaches at least first and second power inputs (L1, L2); at least first and second motor windings (T1, T2); an input ground (26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Malcosky with the teachings of Blair for the purpose of providing some type of device in combination with such industrial type motors capable of indicating whether or not the motor was in a safe condition before the main power source is connected to the motor (1: 24-27).

Quantz teaches the features of the safety circuit (fig. 2). It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 8, Quantz teaches the relay comprises an inductor that is inductively coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of

providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

With regard to claim 9, Quantz teaches the relay comprises a resistor that is coupled to the at least first and second transistor switches. It would have been obvious to one of ordinary to modify Blair with the teachings Quantz for the purpose of providing motor protection system having relay coil which is operable at high and low voltages and is protected from destruction by high voltages (1: 49-52).

***Response to Arguments***

7. Applicant's arguments filed November 6, 2003 have been fully considered but they are not persuasive. The applicant has inferred that the sensing circuit of the reference of Blair is not a "safety device". This is not correct. The moisture sensor of Blair is part of a safety circuit that prevents damage to motor, see at least 2:35 – 50. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reference of Blair recognizes that motor devices need safety circuits in order to keep the motor from operating during a unsafe condition. The reference of Quantz teaches of a safety circuit for a motor that operates to protect a motor from a damaging overvoltage condition. The motivation to combine resides in the fact that they both teach the protection of the motor from damaging conditions. In

response to applicant's argument that the safety circuit of Quantz cannot be incorporated into the invention of the reference of Blair, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

***Final Rejection***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

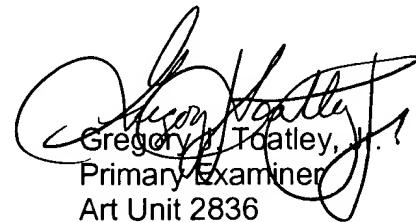
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Toatley, Jr. whose telephone number is (571) 272-2059. The examiner can normally be reached on Mon. - Fri. 7:00 a.m. to 3 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 ext. 36. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory J. Tootley, Jr.  
Primary Examiner  
Art Unit 2836

GJT Jr.